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Amy E. Rinaldo
Kohn & Associates
30500 Northwestern Highway
Suite 410
Farmington Hills, MI 48334

EXAMINER

AFTERGUT, JEFF H

ART UNIT

PAPER NUMBER

1733

12

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/494,837

Applicant(s)

MATHEW ET AL.

Examiner

Jeff H. Aftergut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,8,9,14 and 18-26 is/are pending in the application.
- 4a) Of the above claim(s) 1,8,9,14 and 18-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 15.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Claim Rejections - 35 USC § 102/103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 22-26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over E.P. 439,898 for the same reasons as expressed in paper no. 14, paragraph 4.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over E.P. 439,898 in view of any one of Arterburn, Busdiecker, Haren, Mathews, Gray et al , or Brumbach optionally further taken with Green for the same reasons as expressed in paper no. 14, paragraph 6.

Election/Restrictions

5. This application contains claims 1, 8, 9, 14, and 18-21 drawn to an invention nonelected with traverse in Paper No. 9. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
6. Claims 1, 8, 9, 14, and 18-21 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 9.

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Response to Amendment

7. The affidavit under 37 CFR 1.132 filed 6-19-02 is insufficient to overcome the rejection of claims 22-26 based upon E.P. 439,898 as set forth in the last Office action because: the affidavit was not signed or notarized. The affidavit has been placed in the file but has not been officially entered as it was not properly executed.

The affidavit has, however, been considered and the affidavit is not persuasive for the following reasons. As previously expressed to applicant, the affidavit is not comparing the closest prior art to the claimed invention. The affidavit equates the processing of EP '898 to a "single dip" method, however this process is not a "single dip" method. There is no dipping involved in the operation of E.P. '898. Rather the filaments were coated with the adhesive prior to the braiding of the adhesive coated filaments about the tube. there is no dipping of the tube either before or after the braiding operation in E.P. '898. The affidavit makes comparisons between what was alleged to be the claimed invention and a "single dip" method such as that of U.S. Patent 5,142,782. In U.S. Patent '782 a braiding was applied to the tube and then the assembly was passed through a bath in order to coat the braided tube ("single dip") with the adhesive. E.P. '898 expressly suggested that the operation of braiding followed by dipping was not as efficient as the operation of coating the fibers with the material prior to braiding about the tube because the aqueous solution did not reach the inner liner and E.P. '898 suggested that coating the fibers prior to braiding would have resulted in better bond or adhesion to the inner liner than the coating operation after braiding ("single dip") performed by U.S. Patent '782. Thus, one would have expected that the coating operation prior to braiding would have resulted in a greater bond strength between the braided material and the inner liner (which applicant

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alleges in the affidavit as being one of the “unexpected” benefits of the “double dip” method).

The applicant is referred to column 1, line 44-column 2, line 1 of E.P. ‘898. The applicant is advised that not only did applicant again fail to make a comparison between E.P. ‘898 (because as addressed above E.P. ‘898 is not a dipping method at all but rather is a braiding operation wherein the fibers were coated with the aqueous dispersion prior to the braiding), but that the reference to E.P. ‘898 appears to have achieved at least one of the identified “unexpected” benefits by achieving a superior bond between the inner liner and the braiding material. It should be noted that the braided material was encapsulated in the aqueous dispersion in E.P. ‘898 and the provision of two coatings (a “double dip”) would have provided for encapsulation of the fibers of the braid. The affidavit has failed to establish that the claimed hose has less variation in bond strength and more flexibility than that of E.P. ‘898 by making a direct comparison between the coating of the fibers prior to the braiding operation (neither a “single dip” nor a “double dip”) and the claimed invention (a “double dip”).

Response to Arguments

8. Applicant's arguments filed 6-19-02 have been fully considered but they are not persuasive. The applicant argues that the claimed article (the hose) defined over E.P. ‘898 because of the unexpected benefits attained from the use of the “double dip” method as opposed to the use of a “single dip” method and that there was commercial acceptance of the so claimed “double dip” hose. The applicant is advised that, as discussed in detail above, the processing of E.P. ‘898 produced a hose which achieved a superior bond between the braided material and the inner liner when compared to U.S. Patent 5,142,782 (which is the process applicant is using to compare the closest prior art to the claimed invention), see column 1, line 44-column 2, line 1.

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The applicant additionally argues that the claimed hoses have been commercially successful, however it is not clear that there is a nexus between the claimed hoses and the results. Additionally, the information which applicant alleges was submitted was not filed with the response and therefore a complete analysis of the suggested "commercial success" and the claimed hose cannot be made. It should be noted that one would have expected a superior bond between the braided material and the inner liner in E.P. '898 because the fibers would have been impregnated and fully coated with the aqueous dispersion and thus the dispersion would have encased the fibers and the inner liner would have come into contact with the aqueous dispersion disposed on the fibers in the braiding operation.

The applicant addresses the rejection under 35 USC 103 and states that each of the references to Arterburn, Busdiecker, Haren, Mathews, Gray et al , or Brumbach suggested the application of a "double dip" technique but that the processing was performed so that additional braided layers could have been attached to the inner liner and the initially applied braided layers. The applicant is advised in this regard, initially, that the claims at hand do not exclude the application of an additional braided layer to the hose (note that the claim preamble recites that the hose assembly "comprises" to following components and such language is open claim language. The claim fails to exclude the application of the additional braiding layer about the first braided layer in the patents to Arterburn, Busdiecker, Haren, Mathews, Gray et al , or Brumbach and thus the applicant's arguments are not commensurate in scope with the claims.

Regarding the reference to Arterburn, the reference not only disclosed the use of two dips in baths 36 and 38 but also expressly stated that an additional coating of adhesive would have been applied about the exterior of the last applied braiding material (if necessary), see dip

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applicator 42 (column 2, line 67-column 3, line 2. clearly, when it was necessary, it would have been within the purview of the ordinary artisan to provide a coating both inside a braided layer and outside a braided layer in the manufacture of a tube in light of the teachings of Arterburn.

Regarding the reference to Busdiecker, the reference taught the application of two coatings 13 and 22 in the manufacture of the hose. The first coating was applied to the inner liner, a braiding was applied to the first so coated tube, and a second coating was applied to the braiding. There was no additional braiding applied to the second adhesive coating but rather an extruded layer was applied to the double dipped tube. the applicant is referred to column 2, lines 33-61 and column 3, lines 26-33. the applicant's arguments are therefore unpersuasive regarding the reference to Busdiecker.

Regarding Mathews, the applicant argues that only a single dipping operation was suggested by the reference. However, the reference to Mathews was similar to that of Busdiecker. The reference taught that one skilled in the art would have provided an initial coating upon an inner liner, braided upon the same and then applied a second adhesive coating upon the braided layer prior to extrusion of an exterior coating thereon. The applicant is referred to adhesive coatings 15 of Figure 1, column 5, lines 63-71 where the adhesive applicator 62 applied adhesive onto the braided tube and column 5, lines 1-22, where applicator 46 applied the coating of adhesive to the tube prior to the braiding operation. In Mathews there clearly was two coating operation. It should be noted that there was no exterior second braiding applied in Mathews and thus applicant's argument regarding the same is not persuasive.

Regarding the reference to Haren, the reference suggested that one would have applied an inner adhesive coating 13, two braided layers 12 and 14 and an exterior adhesive coating 15 in

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the construction of the hose therein. While multiple layers of braid were provided the layers of braiding were adjacent one another and did not have an adhesive there between to join the braided layers to each other (as applicant argues was required of the multiple braided layers references). Additionally, one viewing the reference would have understood that the braided layers 12 and 14 would have been seen as a single layer with the fiber running in opposed directions. While the reference suggested two braided layers, it also taught that one skilled in the art would have applied adhesive to the tube prior to the introduction of any braided material thereto, one would have then applied all of the braided layers and following the braiding operation would have applied an exterior adhesive coating to the assembly. The applicant's arguments are not persuasive regarding the reference to Haren.

Regarding the references to Gray et al and Brumbach, the applicant is advised that while both references suggested the application of two adhesive coatings the adhesive was applied for the purpose of facilitating the application of an additional braided layer. The claims at hand do not exclude the application of the second braided layer.

Regarding Green, it is agreed that Green taught the application of a single dip operation. The reference, however was cited optionally in the rejection to further evidence that one skilled in the art at the time the invention was made would have known to apply a dispersion of the adhesive onto the tube. In the references to Arterburn, Busdiecker, Haren, Mathews, Gray et al , or Brumbach there may be some question as to whether a dispersion was used to bond the braided material to the tube). while Green employed a single dip method, the references to any one of Arterburn, Busdiecker, Haren, Mathews, Gray et al , or Brumbach suggested that a "double dip" operation was known at the time the invention was made.

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Regarding the dependent claims, the applicant has not addressed the same other than to state that the rejection of the claims should be withdrawn because the independent claim is patentable. The applicant is advised that there was not challenge to the statement that the use of curing agent in a fluoropolymer dispersion was conventional in the art (and as such it is assumed that applicant agrees with the same).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 703-308-2069. The examiner can normally be reached on Monday-Friday 6:30-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
July 29, 2002